Unit: Scatter Plots and Data
Student Handout 1

Name _____

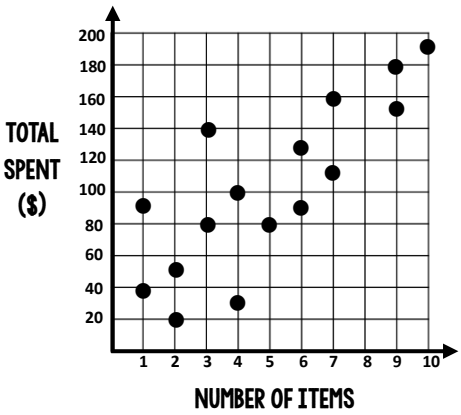
Date _____Pd_____

SCATTER PLOTS AND ASSOCIATION

SCATTER PLOTS

- Scatter plot are graphs that use points to display _____ data with two variables, or _____ data.
- Scatter plots can help determine if one variable has an effect on the other, or if there are overall trends, patterns or _____ between the variables.

Suzie went to the mall and surveyed shoppers to see how many items they'd purchased and the total amount of money they'd spent at the mall. She created the scatter plot below.

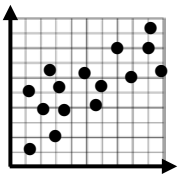


a. How many shoppers did Suzie survey?

b. Does the number of items purchased seem to have an effect on the amount of money a shopper spent? Explain.

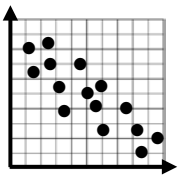
POSITIVE ASSOCIATION

- Two variables have positive association when the variables move _____. For example, as one variable increases, the other variable _____.



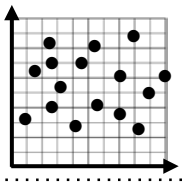
NEGATIVE ASSOCIATION

- Two variables have negative association when the variables move in _____ directions. For example, as one variable increases, the other variable _____.



NO ASSOCIATION

- Two variables have no association when the change in one variable has no effect on the second variable.



Describe the type of association you'd expect to see between the following:

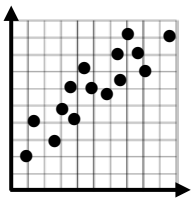
a. The hours a person studies and the number of states they've visited_____

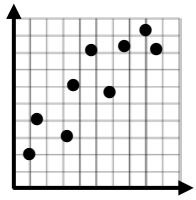
b. The hours a person studies and their grade on an exam _____

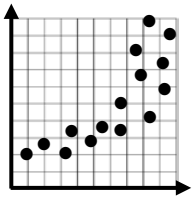
c. The hours a person studies and the hours they spend watching T.V. _____

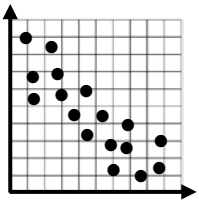
If a straight line can be drawn to follow the overall trend of a scatter plot, it is _____. If the points of data are close together, the association is _____, and if the points of data are widely spread the association is _____.

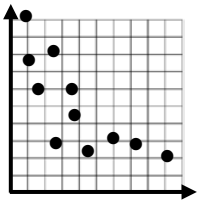
Label each type of association, the strength of the association, and whether or not it is linear.

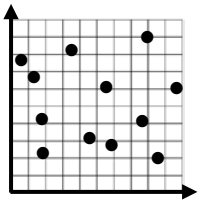
1. 

2. 

3. 

4. 

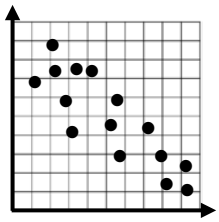
5. 

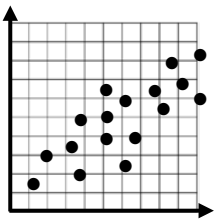
6. 

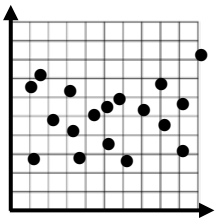
7. Describe the type of association you'd expect to see between the following variables.

1ST VARIABLE	2ND VARIABLE	ASSOCIATION & EXPLANATION
A person's height	A person's shoe size	
The number of letters in a person's name	A person's IQ	
The number of absences a student has	A student's GPA	

In 8-10, match each scatter plot with its possible description.

8. _____ 

9. _____ 

10. _____ 

a. The temperature outside and the total gallons of gas sold at a gas station

b. The size of a home and the cost of monthly utilities for the home

c. The altitude of a hiker and the total oxygen level in the air

Summarize today's lesson: